UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address; COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

DATE MAILED: 12/14/2009

NOTICE OF ALLOWANCE AND FEE(S) DUE

441 7590 12/14/2009 SMITH, GAMBRELL & RUSSELL 1130 CONNECTICUT AVENUE, N.W., SUITE 1130 WASHINGTON, DC 20036

EXAMINER				
KANTAMNENI, SHOBHA				
ART UNIT	PAPER NUMBER			
1627	•			

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFIRMATION NO.

 09/750_280
 12/29/2009
 D. Scott Wilbur
 033972_008
 6495

 TILE OF INVENTION: TREITNICTONAL REAGENT FOR CONJUGATION TO A BIOMOLECULE
 6495

E OF EVERTION. THE CITCHOLDE REMODELL TOR CONSCORTION TO A BIOMODELECT

APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	03/15/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION NOT THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

appropriate. All further indicated unless correcte maintenance fee notifical	correspondence including the delow or directed off	ng the Patent, advance on nerwise in Block 1, by (a	rders and notification of r specifying a new corres	naintenance fees wi pondence address;	II be mailed to the current and/or (b) indicating a sep	t correspondence address a sarate "FEE ADDRESS" fo
		ock 1 for any change of address)	pape	ers. Each additional	nailing can only be used for certificate cannot be used paper, such as an assignment of mailing or transmission.	or domestic mailings of the for any other accompanying ent or formal drawing, must
441	7590 12/14		Interes		ificate of Mailing or Trans	smission
	BRELL & RUSSI FICUT AVENUE, I I, DC 20036		I he Stat addi tran	cabo cartify that this	· Eas(e) Transmittal is bain	g deposited with the United st class mail in an envelope above, or being facsimile date indicated below.
						(Depositor's name)
						(Signature)
						(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,280	12/29/2000		D. Scott Wilbur		033972.008	6495
TITLE OF INVENTION	: TRIFUNCTIONAL RI	EAGENT FOR CONJUG	ATION TO A BIOMOLE	CULE		
			I	I		
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE		
nonprovisional	YES	\$755	\$300	\$0 1	\$1055	03/15/2010
EXAM		ART UNIT	CLASS-SUBCLASS	J		
KANTAMNE		1627	548-304100			
1. Change of corresponde CFR 1.363).			2. For printing on the p (1) the names of up to			
Change of corresp Address form PTO/SI	ondence address (or Cha 3/122) attached.	nge of Correspondence	or agents OR, alternativ	vely,		
□ "Fee Address" Indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.			
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or typ	ne)		
PLEASE NOTE: Unl	less an assignee is ident h in 37 CFR 3.11. Com	ified below, no assignee	data will appear on the particular and the particul	atent. If an assigne	e is identified below, the o	document has been filed for
(A) NAME OF ASSIG			(B) RESIDENCE: (CITY			
Please check the appropr	iate assignee category or	categories (will not be pr	inted on the patent):	Individual 🗖 Cor	poration or other private gr	oup entity 🚨 Government
4a. The following fee(s)	are submitted:	48		se first reapply an	y previously paid issue fee	shown above)
Issue Fee		iu4\)	A check is enclosed.	4 F PPO 2028	is an about	
			☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any			
			overpayment, to Depo	sit Account Number	(enclose a	an extra copy of this form).
 Change in Entity State Applicant claim 	tus (from status indicate s SMALL ENTITY stati		☐ b. Applicant is no lon-	ger claiming SMAL	L ENTITY status. See 37 C	FR 1.27(g)(2).
						he assignee or other party in
interest as snown by the i	records of the United Sta	ites Patent and Trademark	Office.			
Authorized Signature				Date		
Typed or printed name				Registration No		
This collection of inform an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C tiality is governed by 35 I application form to the ons for reducing this bu (irginia 22313-1450. DC 13-1450.	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR 6	on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by th imated to take 12 m idual case. Any cor rr, U.S. Patent and T D THIS ADDRESS.	e public which is to file (an inutes to complete, includi nments on the amount of ti Frademark Office, U.S. Dep SEND TO: Commissioner	d by the USPTO to process; ng gathering, preparing, and ime you require to complete sartment of Commerce, P.O. for Patents, P.O. Box 1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

ess; COMMISSIONER FOR PATENTS P O Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,280	12/29/2000	D. Scott Wilbur	033972.008	6495
441	7590 12/14/2009		EXAM	IINER
SMITH, GAMBRELL & RUSSELL		KANTAMNENI, SHOBHA		
1130 CONNECTICUT AVENUE, N.W., SUITE 1130		ART UNIT	PAPER NUMBER	
WASHINGTON, DC 20036			1627	

DATE MAILED: 12/14/2009

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)	
09/750,280	WILBUR ET AL.	
Examiner	Art Unit	
Shohha Kantampani	1627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to 07/07/2009.
- The allowed claim(s) is/are 34,73,74,99-107 and 109-114.
- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 - 1.

 Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received:

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date ______.
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other _____.

Application/Control Number: 09/750,280

Art Unit: 1627

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given by Suzannah Sundby on 11/20/2009 by faxing the amended claims.

The application has been amended as follows:

1. In claim 99 line 6, after "wherein R1 is" delete

"a radionuclide or"

2. In claim 99 line 13, after "wherein R2 is" delete

"a DTPA derivative or"

- In claim 103 line 2, after radionuclide delete "is" and insert

 "binding/bonding moieties binds a radionuclide"
- 4. In claim 107 line 1, after "according to" delete "claim 103" and insert "claim 114."
- 5. Add new claim 114,
- "114. The single molecule reagent molecule according to claim 99, wherein the radionuclide binding/bonding moiety is a DTPA derivative."

The following is an examiner's statement of reasons for allowance:

The claims 34, 73-74, 99-107, 109-114 are drawn to a single molecule reagent of structure (I). There is no prior art disclosing the applicant's

Application/Control Number: 09/750,280

Art Unit: 1627

compounds. The closest prior art Wilbur et al. teach trifunctional reagent comprising tricarboxybenzene, biotin as the affinity ligand, maleimide as the biomolecule reactive moiety, iodinated benzene as the effector agent, and trioxadiamine as linker 1, linker 2, and linker 3. Wilbur et al. do not teach that linker 1 through which affinity ligand is attached to benzene comprises an aspartyl group. It would not have been obvious to a person of ordinary skill in the art at the time of invention to employ linker 1 which comprises an aspartyl group. Thus, the compounds of structure (I) are new and non-obvious over the prior art. Accordingly, the instant invention as defined by claims 34, 73-74, 99-107, 109-114 is novel and allowable over prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shobha Kantamneni whose telephone number is 571-272-2930. The examiner can normally be reached Monday-Friday, 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should Application/Control Number: 09/750,280 Page 4

Art Unit: 1627

preferably accompany the issue fee. Such submissions should be clearly labeled

"Comments on Statement of Reasons for Allowance."

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1627